

ACCESSION NUMBER: 2006:955255 CAPLUS
DOCUMENT NUMBER: 146:386416
TITLE: Stable liquid vaccines and drugs for the 21st century
AUTHOR(S): Roser, Bruce
CORPORATE SOURCE: NIAB, Cambridge Biostability Ltd, Cambridge, CB3 0LE, UK
SOURCE: Future Microbiology (2006), 1(1), 21-31
CODEN: FMUIAR; ISSN: 1746-0913
PUBLISHER: Future Medicine Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. Cambridge Biostability Ltd has developed stable, dry formulations of vaccines and drugs that contain the actives stabilized in water-soluble glass, together with systems to automate their injection and reactivation. One generic process consists of stabilized actives in glass microspheres, which are suspended in biocompatible anhydrous liqs. where they do not dissolve, forming two-phase liqs. When injected, the glass microspheres dissolve in body water, releasing potent vaccines, and the anhydrous liqs. are either exhaled in the breath or rapidly metabolized. These stable liquid formulations can be stored at a high temperature for at least

3 years, are completely resistant to freeze damage and can be injected without any preparation at the point of use. This is facilitated by a simple, cheap, disposable injection device that requires no training to use yet safely injects the vaccine without a visible needle. This device can be used with conventional liquid vaccines as well as with the stable liquid vaccines described herein. A second process stores the vaccines in a delicate web of glass impregnated in a fibrous membrane in the hub of a hypodermic needle. The vaccine is automatically redissolved and flushed into the patient when the needle is attached to a syringe and 0.5 mL of sterile saline is injected. These products promise to radically improve the way vaccinations and therapeutic drugs are delivered worldwide.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 2005:481795 CAPLUS
DOCUMENT NUMBER: 144:113987
TITLE: Single-shot stable liquid vaccines:
AUTHOR(S): Roser, Bruce
CORPORATE SOURCE: Cambridge Biostability Limited, Cambridge, UK
SOURCE: Innovations in Pharmaceutical Technology (2005), (16), 58-59, 61-62
CODEN: IPTNBO; ISSN: 1471-7204
PUBLISHER: Samedan Pharmaceutical Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Glass microsphere stabilization combined with slow release technol. should ultimately enable the development of single-shot stable vaccines against the majority of fatal childhood infections. The Cambridge Biostability Limited (CBL) has developed an improved glass-forming formulations of mixts. of other sugar derivs., metal carboxylates, amino acids and phosphates. Mixed glasses containing stable vaccines can be produced as spherical microparticles and suspended in non-aqueous, biocompatible liqs. as ready-to-inject liquid dosage forms that require no refrigeration. Using 3 vaccines (tetanus toxoid, recombinant hepatitis B and meningitis A conjugate), CBL has shown in demonstration projects with vaccine manufacturers that glass microspheres in stable anhydrous liquid formulations yield vaccines that are stable at temps. as high as 55° for up to 6 mo, and immunize animals just as effectively as the fresh vaccines.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE 'CAPLUS' ENTERED AT 17:09:35 ON 17 FEB 2009

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| L2 | 24 S E5 |
| L3 | 1 S E6 |
| L4 | 0 S L1 AND L2 AND L3 |
| L5 | 45 S L1 OR L2 OR L3 |
| L6 | 14 S L5 AND JOURNAL/DT |